



Technical Data Sheet

Polyfine 9000

Ultra Fine Polyester Powder Coatings

Product Description

Polyfine 9000 is high durability powder coatings specially formulated for use on exterior environment on a variety of substrates. **Polyfine 9000** gives excellent exterior durability and color retention performance and conforms with the performance requirements of AAMA2603.. **Polyfine 9000** is used where resistance to environmental conditions is required (curtain wall frames, window frames, claddings and residential doors etc) as well as indoor product. **Polyfine 9000** is available in a selected range of colors, in all gloss range finishes and textured effects can be custom matched to the user's need. **Polyfine 9000** is ultra fine powder coatings leading to outstanding smooth surface and thin coating.

Power Properties

Powder properties	Chemical type Polyester
Particle size	15-20 microns average particle sizes
Coverage	About 10M ² /kg at 30 –50 microns of film (100% powder usage).
Coating methods	Auto or hand electrostatic spray
Specific gravity	1.2 - 1.7 depending on colors
Shelf Life	6 months storage below 30 °C dry conditions
Curing Condition	10 minutes at 200 °C or 20 minutes at 180 °C

Film properties

Mechanical tests	
Flexibility	Pass 3mm (Conical Mandrel)
Adhesion	0% failure (no loss) on Dry and Wet Adhesion test of AAMA 2603. 6.4.
Erichsen Cupping	> 7mm
Pencil Hardness	H – 2 H
Reverse Impact Resist.	No removal of film from substrate, AAMA 2603, 6.5.
Chemical and durability	
Salt Spray tests	1500 hrs no corrosion area more than 2mm from scribe ASTM D 1654
Humidity Resistance	1500 hrs - no blister > size of N0 8, figure of No 4, ASYM D 714
Artificial weathering	ASTM G53/77 (500 hours) Excellent performance. Slight even loss of gloss; no checking, cracking, flaking or chalking. Chalking None in excess of minimum in ASTM D659: 1980 - Color change None in excess of one Munsell Step.
Exterior durability	(Florida exposure 45 °S. exposure 45 °N) Pass one year with standard of performance as in artificial weathering test above.

Mechanical tests carried out on chromated aluminum panels. All tests performed on panels coated with 30 to 60 microns of a gloss finish powder cured for 10 minutes at 200 °C. Reduced gloss finishes may show lower values for mechanical performance.

Pretreatment

For maximum protection it is essential to pretreat architectural components prior to the application. Aluminum extrusions must coat a chromate conversion.

Application

Polyfine 9000 can be applied by manual or automatic electrostatic spray equipment, however for consistency of finish automatic equipment is preferred. Unused powder can be reclaimed using suitable equipment and recycled through the coating system.

For further details on powder properties and film performance of **Polyfine 9000** please contact FineShine Company.

Safety Precautions

This product is intended for use only by professional applicators in industrial environments and should not be used without reference to the relevant health and safety data sheet which FineShine has provided to its customer. If for any reason a copy of the relevant health and safety data sheet is not immediately available the user should contact FineShine to obtain a copy before using the product. Minimum safety precautions in dealing with all powder coatings are as follows. All dusts are respiratory irritants. Therefore, inhalation of the dust or of the vapors resulting from the cure should be avoided. Take steps to prevent skin contact, but should contact occur, wash skin with soap and water. In case of eye contact flush immediately with clean water and seek medical advice. Dust clouds of any finely divided organic material can be ignited with an electric spark or open flame. Dust and powder should not be allowed to build up on surfaces or ledges. Dust collection equipment should be used which has provision for adequate explosion release. All equipment should be electrically earthed to prevent build up of static. Users are recommended to follow the guidelines laid down in the AS3754, 1990, Safe Application of Powder Coatings by Electrostatic Application.

Disclaimer: The information given in this sheet is not intended to be exhaustive and any person using the product for any purpose other than that specifically recommended in this sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at his own risk. Whilst we endeavor to ensure that all advice we give about the product (whether in this sheet or otherwise) is correct we have no control over either the quality or condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability whatsoever or howsoever arising for the performance of the product or for any loss or damage (other than death or personal injury resulting from our negligence) arising out of the use of the product. The information contained in this sheet is liable to modification from time to time in the light of experience and our policy of continuous product development.